

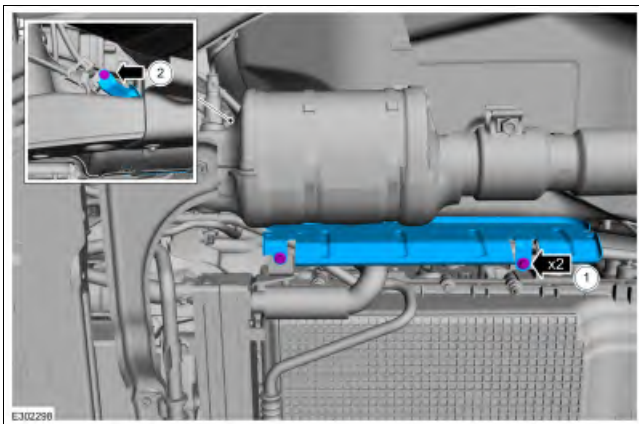
Special Testing Procedures

Line Pressure Test

NOTE: Carry out the Line Pressure Test prior to the Stall Speed Test. If line pressure is low, do not carry out the stall test or additional transmission damage will occur. Do not maintain Wide Open Throttle (WOT) in any gear range for more than 5 seconds.

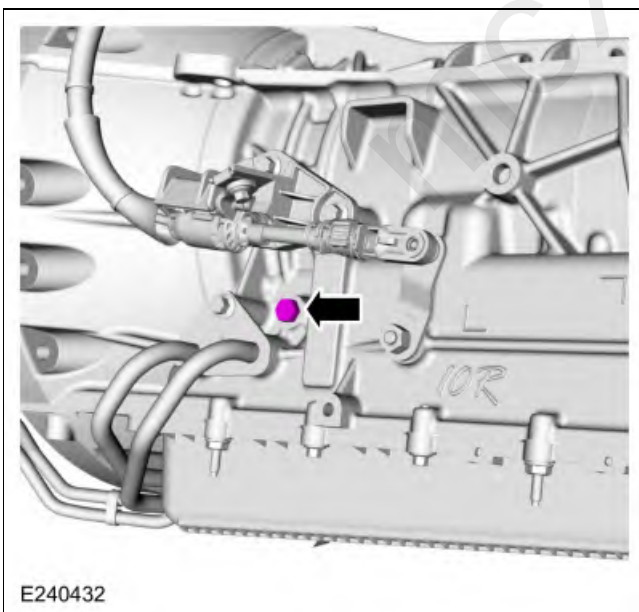
This test verifies the line pressure is within specification.

1. If equipped, remove the heat shield.
 1. Remove the 2 bolts. Torque: 10Nm (88 lb-in)
 2. Remove the push pin and the heat shield.



2. Connect the transmission fluid pressure gauge (307-004) to the line pressure tap using an M10 X 1.00 fitting.

NOTE: The line pressure tap is an M10 X 1.00 thread. Do not use a National Pipe Thread (NPT) fitting when installing a pressure gauge. If a NPT fitting is used, damage to the transmission case will occur.



3. Start the engine and check the line pressure.
4. Using a diagnostic scan tool, monitor and compare the PID LINEDSD# to actual measured pressure. Actual measured pressure should be within 10 PSI (69 kPa) of PID LINEDSD#. Raise engine RPM to 2000 RPM and verify LPC operation by monitoring LINE pressure while commanding LINEDSD# up and down.
5. If the line pressure is not within specification, see the Line Pressure Diagnosis Chart for possible sources.

6. When the pressure tests are complete, install the line pressure tap plug.
 - Tighten to 13.5 Nm (120 lb-in).

Line Pressure Diagnosis Chart

Test Results	Possible Source
HIGH at IDLE	• Wiring harnesses • LPC solenoid • LPC valve
LOW at IDLE OR Does not change when commanding LINEDSD# up and down	• LPC solenoid mechanically stuck OFF • Fluid inlet filter/seal • Main control valve body • Main pressure regulator valve stuck in spring compressed position • Broken or missing main pressure regulator valve spring • Pump • Separator plate

A no-drive condition can exist even with correct transmission fluid pressure because of inoperative clutches. Refer to the Clutch Application Chart to determine which clutch is applied in each gear range. A clutch concern can be further diagnosed by performing the air pressure test.

Stall Speed Test

NOTE: Carry out the Line Pressure Test prior to the Stall Speed Test. If line pressure is low, do not carry out the stall test or additional transmission damage will occur. Do not maintain Wide Open Throttle (WOT) in any gear range for more than 5 seconds.

NOTE: If the engine speed exceeds maximum specified rpm, release the accelerator pedal immediately.

NOTE: Only perform the stall speed test with the engine and transmission at normal operating temperatures.

To prevent damage to transmission and driveline components, the PCM will truncate engine torque output when a stall condition exists. Because of this torque truncation, the stall test cannot be used as a diagnostic test for determining the health of the transmission clutches.

The PCM monitors clutch performance and will set one or more DTCs when an undesired slip is detected.

The torque converter stator one-way clutch should hold at idle and during acceleration. A failed one-way clutch can be identified if **all** of the following conditions/symptoms exist:

- Transmission fluid is clean and free of excessive contamination
- Normal/expected vehicle performance at cruising speed
- Poor engine idle quality. The engine may even stall
- Very poor acceleration/Lack of power
- Very low stall RPM: <1500 RPM. Perform test procedure below:

1. Apply the parking brake.
2. Connect the scan tool. Navigate to Datalogger: PCM
3. Monitor the PIDs: APP (%), RPM, LOAD (%) and GEAR_CMD
4. Start the engine.
5. Place the transmission in reverse.
6. Start datalogger recording.
7. With the brake pedal firmly applied, press the accelerator pedal to 100% for 2-3 seconds until engine RPM stabilizes. Release the accelerator pedal.
8. Place the transmission in neutral.